# V.—Some Notes on Birds in Sarawak.—By R. B. WILLIAMS.

[The following notes are from Mr. Williams' private sketch-book, in which he has brought together accurate paintings of about one hundred different species of birds shot by him during the last three years in Sarawak. Below each picture he has made full notes of the general colouring of the bird, and in many places he has been able to add short notes on their flight, food abundance, localities, &c. The Latin and English names of the bird are given at the top of each page, these being obtained by Mr. Williams by comparing his specimens or pictures with the collection in the Sarawak Museum from time to time. The paintings are so accurate and so carefully done that I have had no difficulty in verifying (and correcting in one or two instances) all Mr. Williams' identifications. rough notes accompanying the pictures were written entirely for his own use, and not with the least idea of future publication; but they contained so much of interest and value, particularly the notes on the colour of the soft parts, that I have persuaded Mr. Williams to allow me to collect extracts for publication in the following article, only leaving out his descriptions of plumage, character of bill and feet, &c., which can be found in any of the standard books where descriptions are given, though usually from Museum specimens.]—J. C. Moulton.

### RHIZOTHERA LONGIROSTRIS, Temm.

(The Long-billed Francolin.)

Common but not often seen; very shy, but its shrill cry is heard almost anywhere in the morning or evening. The cry is a kind of shrill whistle, and is something like "kanking, kanking." They keep chiefly to the ground, but will often alight on a tree. I have flushed one which only flew a few yards, and then alighted on a low tree quite close to me. Good plump birds to eat, but do not give good

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shooting, as they keep to the jungle and are more inclined to run than fly. The feet, tarsus, and claws are pale watery yellow. The iris is clear yellow-brown. The food is probably much the same as that of other partridges, but it is particularly fond of Indian corn, and may often be found feeding under a jungle fruit tree.

#### LOPHURA NOBILIS, Scl.

(The Bornean Crested Fireback.)

Sometimes these birds are found in coveys roosting in trees; five were shot quite close together one evening at Poak. They are inclined to be pugnacious; I saw one in a small cage, which would make a rush at the bars on a hand being placed close to it. The Dayak name is "Sumpidan," and Malay "Manok utan."

#### BUTRERON CAPELLI, Temm.

(The Large Thick-billed Green Pigeon.)

The feet are orange.

#### OSMOTRERON FULVICOLLIS, Wagl.

(The Rufous-necked Fruit Pigeon.)

The claws are grey. Eyelids grey with orange-yellow margins.

### OSMOTRERON VERNANS, Linn.

(The Rosy-necked Fruit Pigeon.)

The most common variety of "punai" in Upper Sarawak. It may often be seen flying about in flocks of thirty to forty in the low jungle, and feeding chiefly on small berries, not in large fruit trees. It has a curious wailing whistle. The feet and tarsus are characteristic of the pigeons in Sarawak—very strong and muscular. A bird when shot in a tree will often cling upside down to a twig and then fall dead, after perhaps half a minute. The flight is that of a typical pigeon—swift and decided. Iris: there is an inner ring round the pupil of bright enamel-like blue, and outside this there is a ring of coral pink.

Male.—Bill blue-grey on the hard tip; the soft parts round the base and nostrils are green yellow with some

orange. Feet crimson, claws grey.

Female.—Blue-grey at the tip, while the soft parts are green.

## OSMOTRERON OLAX, Temm. (The Common Green Pigeon.)

The iris of male and female has an inner ring of grey-white and an outer one of pink. The feet and tarsus are coral pink, claws grey. The bill is grey-green. The flight is very fast and typical.

# CARPOPHAGA ÆNEA, Linn. (The Imperial Green Pigeon.)

A rather heavy, clumsy bird, it flies with a slow steady beat of the wings as it makes its long straight flights to and from its feeding places in groups of two to five, or even singly; evening after evening they may be seen flying over the same spot during certain periods of the year, and are very difficult to bring down with a 12-bore gun, as they are usually just out of range and carry a lot of shot. The bill is a nondescript green-grey colour; the gape is very large and wide. I have shot them with crops full of fruit bigger than olives. The feet are large, strong, fleshy, and deep red in colour, claws black. Not an uncommon bird, and may often be heard making its deep "coo-coo" hour after hour, but is difficult to approach, as it sits in some small tree; but in the early morning it may be seen feeding ravenously in a fruit tree.

## CHALCOPHAPS INDICA, Linn. (The Bronze-winged Dove.)

July 28th, 1912.—Shot eleven "Imbok" on the Sarawak river between Bau and Bidi. I never saw so many before. They were usually single, but at times in the middle of the day I put up three and four at a time, usually off the ground, and they keep entirely to low jungle. The flight is rapid and typical of a pigeon, but swerving in jungle like a woodcock. They are well adapted for living on the ground, running very rapidly through the grass. Strictly a jungle dove, and Bartlett says the eggs are a creamy white. Fairly common, especially about the banks of rivers. I saw a good many on the Samarahan and Sadong rivers, giving very sporting shots as they flew across.

One shot (February 16th, 1913) was apparently a young female. The bill, feet, and tarsus were not red, only

showing pinkish through dusky brown.

Male.

Female.

Bill crimson, with top of the extremity slightly blackened.

Ditto, slightly darker at the top.

Iris dark brown.

Ditto.

Eyelids deep red, surrounded by a little red naked skin, extending to the base of the bill.

Paler.

Feet and tarsus crimson; back of tarsus and soles of feet white, claws black.

Hypotænidia striata, Linn.

(The Blue-breasted Banded Rail.)

Shot one at Bau in a small marsh in August, 1911; bill crimson; throat grey; feet and tarsus yellow; iris possibly orange.

RALLINA FASCIATA, Raffl.

(The Malayan Banded Crake.)

Shot one on June 15th, 1912, which was in a little boggy jungle stream, and flew up to alight in a small tree, where I shot it. Iris clear orange-brown; tarsus and feet crimson, claws grey; eyelids crimson; skin at base of bill and gape crimson. The stomach contained worms and grubs.

December 16th, 1912.—Shot a male (undoubtedly) with apparently good plumage, but very different from the above. The upper part of upper mandible was black, shading to pale green in the lower. The iris clear orange-brown. The crimson round the eye was entirely absent. The feet and

tarsus were pinkish-brown, claws grey.

AMAURORNIS PHŒNICURA, Forster. (The White-breasted Water-hen.)

Very common in almost any piece of swampy ground. In a female shot in June, 1912, there is a red yellow shield at the base of bill, which is green. The iris is yellow-brown, feet and claws very long—a muddy yellow colour. At the same time as the above another was shot, which may have been a male; the same as above, except that there was no shield on the forehead; bill, feet and tarsus were longer and stronger, and there was more grey about the head and neck. Possibly a young bird or a male in bad plumage.

November 17th, 1912.—Shot a "Kruak" as above, but it was a male with a good orange shield as above.

#### GLAREOLA ORIENTALIS, Leach.

(The Large Indian Pratincole, or Swallow Plover.)

I have never seen this species in Sarawak except for the above specimen, which I shot at Claudetown, where I watched it for some time soaring about. The bill is black, broad at the gape, which is coloured crimson. Feet and tarsus black; oil-gland tufted; iris brown.

#### BUBULCUS COROMANDUS, Bodd.

(The Cattle Egret.)

The legs and feet are dark green, almost black; the claws are black; iris bright yellow.

#### ACCIPITER VIRGATUS, Temm.

(The Besra Sparrow-Hawk.)

Not uncommon. The bill is typical, black, and the tip shading into grey. The cere is greenish yellow. The feet and tarsus are a fine yellow with black claws; iris bright yellow, as are also the eyelids.

## ICTINÆTUS MALAYENSIS, Temm. (The Malayan Black Eagle.)

The above specimen was shot in a tall tree at sundown. It is said by natives to be a night-bird. A very handsome bird with splendid feet and claws; the eyes are large and inclined to be owl-like. The native with me called it a "Menaul malam." The bill, cere, and nostril are black; feet yellow; iris bright yellow.

#### MICROHIERAX FRINGILLARIUS, Drap.

(The Malayan Falconet.)

Fairly common, usually seen in pairs sitting on a tall dead tree, from which they make short flights to catch the insects, on which they chiefly live. Iris light brown; thigh, tarsus, and feet black.

KETUPA KETUPA, Horsf.

(The Fishing Owl.)

There is a black cere; iris yellow.

#### Scops Lempiji, Horsf.

(The Collared Scops Owl.)

The bird when sitting looks very like a ball of feathers, and is nearly as broad as it is long. The stomach contained insects. Oil-gland long and bare; iris light brown.

#### Loriculus Galgulus, Linn.

(The Blue-crowned Hanging Parroquet.)

Fairly common and a popular cage bird with the Malays. The bill is black; iris dark brown; cere greenish; feet and claws a pale brown. These birds will often hang head downwards in a cage for hours. The note is a shrill little chirp.

#### EURYSTOMUS ORIENTALIS, Linn.

(The Eastern Roller.)

Not common. I have only seen one specimen in Upper Sarawak. The bill is large, broad, and very decidedly hooked; bright crimson, only the hook being black; the feet are crimson and the claws black; iris brown.

### Pelargopsis Leucocephala, Gm.

(The White-headed Kingfisher.)

Not common, but may often be seen on big lakes and rivers. Iris brown, and not round; eyelids crimson; feet and tarsus red and typical, claws black. A female shot at Bau in February had its stomach empty and ovaries well-developed. Saw plenty of these up the Sadong river in April.

### ALCEDO MENINTING, Horsf.

(The Malayan Kingfisher.)

Not uncommon, but it keeps to the jungle streams

chiefly.

August 27th, 1912.—Shot a male at Tai Ton on the Sarawak river. The bill is black but orange at the gape; feet and claws coral red. The flight is very swift, with short quick beats of the wings, like the common English Kingfisher. The stomach seemed to contain the remains of fish, but these may have been insects, as they were very much decomposed.

September 18th, 1912.—Noticed one of these Kingfishers catching fish by darting at them from a bush at the side

of a lake. Also heard the thin "cheep" made by it as it flies in a straight line like the common English Kingfisher; the flight is very similar too.

#### CEYX EUERYTHRA, Sharpe.

(The Malayan Three-toed Kingfisher.)

Not uncommon, but keeps to thick jungle; it is fairly common on the upper reaches of the Sadong and Samarahan rivers. The bill is scarlet; feet coral red with rather long sharp and very dainty claws; iris black. The note is a typical Kingfisher pipe; the flight direct and darting. The stomach of one was apparently full of insect remains, but may also have contained crustacea, as it smelt distinctly fishy.

#### HALCYON PILEATA, Bodd.

(The Black-capped Kingfisher.)

Common round ponds and rivers during September to April. This bird does not eat fish; the specimen shot had chiefly grasshoppers and insects in its stomach. A female shot in November had ovaries showing signs of developing.

#### HALCYON CONCRETUS, Temm.

(The Brown-collared Kingfisher.)

Uncommon, or not seen in Upper Sarawak. Bill is yellow and black: iris brown; eyelids yellow; feet and tarsus yellow. The stomach contained fish much decomposed, and smelt strongly of phosphorus.

### HALCYON CHLORIS, Bodd.

(The White-collared Kingfisher.)

Commonest about the coast, often seen in mangrove swamps. Has a curious uncertain flight, like *H. pileata*, and the same cackling cry. Iris brown; lower mandible slightly violet.

### Anthracoceros convexus, Temm.

(The Javan Pied Hornbill.)

Iris of female a clear brown. Flight slow, like that of a crow. I saw a great many of these birds in Samaharan and Sadong, usually in flocks of 10-20 or single, but they do not seem to be truly very gregarious; a bunch of them in a tree will not flush all out at once when alarmed, but

straggle away in twos and threes. The feathers are very loose, and it is difficult to skin, because in places there seem to be two skins, which separate easily from the body, but only the outer one can be preserved. Feet slate grey.

## MEROPS SUMATRANUS, Raffl. (The Sumatran Bee-eater.)

Fairly common during the months of April to September; often seen flying about, and may easily be mistaken for a swallow against the sky, but it is larger, and the wings are triangular when spread; also, when turning in the air after flies the tail is spread out in a bluntly forked fan. The two elongated feathers of the tail are in most cases nothing but the bare shafts of the feathers. These birds may often be seen ranging and quartering an area after flies, and making their hoarse whistle or cackle. The iris is crimson; feet brownish-black. Shot two at Tai Ton, which I had watched in a paddy field sitting on dead trees, every now and then making short flights to catch insects.

## NYCTIORNIS AMICTA, Temm. (The Red-bearded Bee-eater.)

Specimen shot at Jaguay (February 19th, 1912) was clambering about a tree on the banks of a stream; there were at least two together, and they seemed to be feeding on insects. Iris bright orange. Stomach full of beetles.

May 10th, 1912.—Shot a specimen of the above, presumably a young bird, at Lanchang, Samarahan, which showed no red, and the tail was quite short, but the black tip and the yellow under side to the tail were evident. The iris was browny-grey colour. The note is a hoarse cackle. The Lanchang Dayaks called it "Burong Haw Haw," but this does not quite represent the noise. This bird was a female. They probably catch all their food (insects) on the leaves and twigs of trees, and not on the wing.

### Caprimulgus macrurus, Horsf. (The Javan Goatsucker.)

Common; it is seen swooping and flitting about at night, also hovering like a hawk, which it resembles in flight. The cry is a monotonous "jtock, jtock, jtock," uttered at irregular intervals, and it gives from one to seven "jtocks" at a time in quick succession.

#### MACROPTERYX LONGIPENNIS, Rafin.

(The Long-winged Swift.)

Fairly common in open spaces. Feet and tarsus dusky brown; iris dark brown. Oil-gland rather large, pointed and black.

MACROPTERYX COMATA, Temm. (The White Eye-browed Swift.)

I have not seen it often, but on May 24th, 1913, I saw two sitting on low dead trees in an old clearing. They would sit still on their low perch, but make repeated short flights after insects and then return.

Pyrotrogon duvauceli, Temm. (The Small Black-headed Trogon.)

Bartlett says this is the most abundant of the trogons, but I have not often seen it, doubtless because of its habits. It will sit for hours in a low tree, hunched up and with its feathers ruffled up. The bill is black at the tip and margins, from which margins it shades into deep, almost violet, blue; this colour is continued to the gape and beyond it, where there is a curious long patch of naked deep blue skin. There is a curious patch of rather light blue naked skin overhanging the eye. Iris dark brown; the feet are black. The stomach contained insects, and among them a fairly large grasshopper.

# Cuculus micropterus, Gould. (The Indian Cuckoo.)

Bill black. The mandible black at the point and greygreen for the rest of the way to the gape, which has the outer skin canary yellow, as are also the protruding and very striking eyelids. Feet bright yellow; iris brown.

# Penthoceryx sonnerati, Lath. (The Banded Bay Cuckoo.)

Common, especially during the north-east monsoon. It has a lazy, slow-flapping flight; it may often be seen on the ground, and it also frequents low trees and bushes. The bill is black, but shades to yellowish-grey, or even orange, towards the base of the mandible. Feet greenish-yellow with yellow soles; claws grey; iris brown.

EUDYNAMIS HONORATA, Linn. (The Black Indian Cuckoo.)

The bill is black; the feet and tarsus are blue-grey; iris black.

Rhopodytes borneensis, Sharpe.

(The Bornean Green-billed Malkoha.)

Quite common; it may often be seen clambering awkwardly in low jungle, and making short flights, giving a few beats with the wings and then gliding. Its food is chiefly insects caught on the leaves and branches. The bill is green (black inside); the iris is a milky-blue colour.

Rhopodytes chlorophæa, Raffl.

(Raffles' Green-billed Malkoha.)

Common; usually seen near water clambering about the smaller branches of trees searching for insects, on which it lives, and making short flights—making a few beats of the wings and then gliding. The bill is a dull green, and the naked skin round the eye much the same colour; feet and tarsus blue-grey.

UROCOCCYX MICRORHINUS, Berlep. (The Large Bornean Malkoha.)

Fairly common; it feeds on insects and beetles, and is usually seen clambering about in low jungle; it has a slow flapping-flight. The bill is pale green, but the base of the maxilla and most of the mandible are a deep red; this patch includes the nostril in the maxilla. The feet and tarsus are grey, dirty yellow in the soles; iris orange-yellow.

Calorhamphus fuliginosus, Temm. (The Bornean Red-throated Barbet.)

Common in Upper Sarawak.

July 15th, 1912.—Shot a female. Iris yellow-brown; legs coral red; claws black-grey; the ovaries were not well-developed.

CHOTORHEA MYSTACOPHANES, Temm.

(The Gaudy Barbet.)

Very common, and may often be seen in numbers feeding in any fruit tree. The iris is black or dark brown; the claws are black. The note is a curious cooing whistle.

Flight direct and strong. Like the other Barbets, it is a voracious feeder on all kinds of fruit. The feet and tarsus are coloured greyish-green.

Mesobucco duvauceli, Less. (The Small Malayan Barbet.)

Common; chiefly seen during the dry season—probably because it has more difficulty in finding food at that time. One of the commonest Barbets. The feet are greyish-green, zygodactylous, with black claws. A voracious feeder on fruit and flies, with the typical undulating flight of a Barbet; Iris dark brown.

GECINUS OBSERVANDUS, Hart.

(The Bornean Crimson-winged Green Woodpecker.)
The upper mandible is black, the lower blue grey.

MIGLYPTES GRAMMITHORAX, Malk.

(The Fulvous-rumped Barred Woodpecker.)

The bill is black.

September 25th, 1912.—Shot a female. The iris was black.

December 22nd, 1912.—The iris is certainly very dark, but it has a distinct reddish tinge in a good light. This was a female also.

### MIGLYPTES TUKKI, Less.

(The Buff-necked Barred Woodpecker.)

A common bird, and its shrill screech may often be heard from the tops of tall trees. The maxilla is black, mandible blue-grey; feet and tarsus greenish-brown; the oil-gland has a small tuft; iris deep red.

Hemicerous sordidus, Eyton. (The Grey and Buff Woodpecker.)

A tiny woodpecker; not very common, I think, but probably keeps well out of sight. The bill is dark grey, squared off at the tip and sharp. There is a decided crest at the back of the head, which gives it a hammer-head look. Iris dark red.

## Alophonerpes pulverulentus, Tomm. (The Great Slaty Woodpecker.)

Probably not uncommon in some districts. Two were shot for me in old jungle near Grogoh by a native, and he described them as being in a flock like Sparrows. The bill is mostly black, but has a part dirty yellow; the feet and claws are black; iris red.

## Sasia abnormis, Hodgs. (The Malayan Piculet.)

Not uncommon; often seen in lalang, tall grasses and canes, from the stem of which it gets its food of grubs and insects as a Woodpecker does. Iris red, and the eyelids are round and bulging out of naked crimson skin; upper mandible black, lower mandible pale yellow; the bill is hard and strong but loose, and the whole bird has rather a miserable appearance; the feet and tarsus are yellow.

# EURYLÆMUS OCHROMELAS, Raffl. (The Black and Yellow Broad-bill.)

Found throughout the year. Iris yellow; bill blue to green at tips; legs flesh-coloured.

I have seen it clinging to the trunk of a tree like a Woodpecker hunting for its food—beetles and locusts.

## CYMBORHYNCHUS MACRORHYNCHUS, Gm. (The Malayan Black and Red Broad-bill.)

Builds a large nest of roots, sticks, rags, &c. Male, iris dark bottle-green; upper mandible sky-blue; lower, yellow, with blue-green margins; legs blue.

Chiefly met with near water—rivers, lakes, &c. The natives say that this bird catches and eats fish. But its chief food is certainly beetles.

### PITTA GRANATINA, Temm.

(The Bornean Scarlet Pitta.)

A specimen shot at Jaguany, February 19th, 1912, rose from the ground in a jungle path, and flew with a big twist and hurried flight like a Quail alarmed. Colours very brilliant, especially the purple mantle and blue on wings.

## PITTA MULLERI, Bp. (Muller's Green Pitta.)

One shot in Samarahan was sitting in a low tree, where it was whistling like a Common Thrush.

Cyornis Beccariana, Salv. (Beccari's Blue Flycatcher.)

Bartlett describes this as a very rare species, but in this district of Upper Sarawak it seems fairly common, and I have seen two or three together on the Sarawak river; also I have seen it on the borders of lakes, but never far from water. It seems to get its food from near the surface of water, making short jerky flights from its perch on the bank. The feet and tarsus are a dull brown; oil-gland bare; iris brown.

September 25th, 1912.—Shot a male, and saw several

more in old jungle.

### HYPOTHYMIS OCCIPITALIS, Vig.

(The Black-crowned Blue Flycatcher.)

Not uncommon in jungle. The tail is flicked about as in the case of other Flycatchers; feet and tarsus blue-grey; the oil-gland is bare; iris black; inside of mouth and tongue yellow-green. The above is a description of the male. In the female the bill is black, feet blue-grey; inside of mouth and tongue yellow; iris dark brown.

### RHIPIDURA PERLATA, Mull.

(The White-spotted Fantail Flycatcher.)

Bill black, yellowish at the base of the mandible; feet and tarsus grey; oil-gland bare; iris black.

Rhipidura Javanica, Sparmm. (The Javan Fantail Flycatcher.)

One of the commonest birds in Upper Sarawak. It has a curious jerky song, and is seen chiefly in the morning and evening flitting about in low trees, flirting out its fanshaped tail and wings; iris black.

TERPSIPHONE AFFINIS, Blyth.

(The Burmese Paradise Flycatcher.)

Almost always found in old jungle, often near a river or stream. It is one of the most graceful and fairy-like of

birds as it flies amongst the huge trees with a weak irregular, but restless, flight. Not uncommon, though the male, owing to its colouring, is much more easily seen than the female. The bill is a blue-grey colour; the inside of the bill and mouth is bright yellow with a greenish tinge; iris dark brown or black; the eye has a protruding bare ring or wattle round it of a pretty Wedgwood blue; feet and tarsus are a pale blue-grey.

#### LALAGE TERAT, Bodd.

(The Pied Cuckoo-shrike.)

A common bird, most abundant near the coast, but quite common in Upper Sarawak also. The bill is black, shading to orange at the base, where there are a few small bristles; iris brown; feet and tarsus black.

Chloropsis cyanopogon, Temm. (The Blue-whiskered Chloropsis.)

Not very common, but difficult to see in the jungle. Female; iris dark brown; feet and tarsus grey; beak black.

IRENA CRINIGER, Sharpe. (The Fairy Blue Bird.)

Fairly common in the fruit season, when it is seen on fruit trees and flying about with its straight graceful flight. It flies as a rule very straight but undulating, giving a few beats with the wings and then closing them, at the same time uttering its sharp "twing, twing." Male, bill black; iris deep red; oil-gland small and bare; feet, tarsus, and claws black. The female is a curious blue colour, quite different to the male—a much softer colour and not shiny, almost Wedgwood blue. One shot (January 20th, 1913) had four or five thin hairs at the back of the head, which might easily escape notice; iris crimson.

### MICROTARSUS MELANOCEPHALUS, Gm.

(The Black-headed Bulbul.)

Common during the months September to February, and fairly common all the year round. Iris blue-grey; beak and legs black. Utters its characteristic chirp and flies with a flickering undulating movement. A female shot (January 1st, 1913) with ovaries well-developed.

#### TRACHYCOMUS OCHROCEPHALUS, Gm.

(The Yellow-crowned Bulbul.)

Common, especially in gardens and along the banks of rivers; it however keeps very well hidden as a rule, but its irresponsible whistling babble is very common, and a very liquid note. I saw great numbers of these along the banks of the Sadong river in May, 1912. Feet, tarsus, and claws black. The Malays call it "Burong boya." Oilgland bare; iris brick red.

## Pycnonotus analis, Horsf. (Horsfield's Bulbul.)

One of the commonest birds in Upper Sarawak, as it is all over the country, and does a good deal of harm by eating pepper here. The feathers on the back of the head are erected when the bird is excited or surprised. Great numbers of these Bulbuls are often seen roosting together in low jungle, usually in a marsh, and making a great noise with their harsh bickerings. The flight is undulating. The iris is deep brown.

## Hydrocichla Ruficapilla, Temm. (The Red-headed Fork-tail.)

The feet and tarsus are pale yellow, so as to be almost white. Oil-gland bare; iris dark brown.

## CITTOCINCLA SUAVIS, Scl. (The Long-tailed Thrush.)

Fairly common; strictly a jungle bird, and keeps to the lower branches of trees, flitting and flying about like Copsycus musicus. The song is like that of a Thrush and very sweet, chiefly heard in the evening. It is a Dayak omen bird, almost always seen solitary. The iris is black or dark brown; the tail is inclined to fork outwards; tarsus, feet and claws pale brown; food—insects and seeds.

### ORTHOTOMUS CINERASEUS, Blyth. (The Ashy Tailor-bird.)

Found in lalang and low jungle, where it clambers about, making a curious bleating noise; iris yellowish brown; very plentiful. A female shot at Bau (Dec. 5th, 1911) had well-developed ovaries. The bill is brown, lighter coloured

underneath; iris a dirty yellow; feet, claws and tarsus dull brown; oil-gland bare.

# Burnesia superciliaris, Salv. (The Malayan Wren-warbler.)

A very common bird, especially seen in open spaces along roads and in old lalang patches, where its plaintive pipe is very common, and also the curious snapping-flicking noise which it seems to make with its tail or wings and bill. Feet and tarsus a brownish-yellow; there is a slight ring of light brown naked flesh round the margin of the eyelids; iris light brown; oil-gland small and bare.

### ARTANUS LEUCOGASTER, Valenc. (The White-bellied Wood-Swallow.)

Not common in Upper Sarawak, but one day I saw three or four hawking about in a paddy field. At Bintulu, Baram and other places on the coast I saw plenty of these birds, and they seemed to like being near houses and villages; often flocks of ten to fifteen were seen on one tree. They are said by Malays to be very pugnacious and brave; and certainly they have that appearance, with their bulletheads and strong sharp bill. Their flight is curious, and not unlike that of a Swallow, and they have triangular wings when spread. The bill is blue-grey, darker at the tip, very strong, and something like that of a Sparrow, but longer and sharper; feet and tarsus slate-grey; iris dark brown.

## PLATYLOPHUS CORONATUS, Raffl. (The Brown Jay-Shrike.)

This seems to be quite an uncommon bird in Upper Sarawak. The Dayak name is "Bejampang," and it is an omen bird with the Sea-Dayaks. Bartlett says it is "rare and solitary," but the only time I have seen it there were two together; later a native brought me one.

The colour of the bill is black, shading to grey towards the base; the feet and claws are blue-grey, large and strong; iris brown.

### DENDROPHILA CORALLIPES, Sharpe.

(The Coral-legged Nuthatch.)

A pretty little bird, probably fairly common in old jungle; its habits are much the same as those of the

English species. The iris is red, with a ring of naked skin round the eyes. Feet and tarsus coral red.

DICÆUM NIGRIMENTUM, Sharpe.

(The Black-backed Flower-pecker.)

Common in the dry season, but not so often seen as the other Flower-peckers.

#### ÆTHOPYGA SIPARAJA, Raffl.

(Raffles' Sunbird.)

A common bird all the year round, but commonest during the wet season, perhaps. Male: tassel on the end of the long tongue is black and yellow; iris dark brown to black; the feet and tarsus greenish brown.

CYRTOSTOMUS PECTORALIS, Horsf.

(The Purple-throated Sunbird.)

The bill is black, with the usual long tasselled tongue; iris dark brown.

#### Arachnothera Longirostris, Lath.

(The Little Spider-hunter.)

These Arachnotheras are all very much alike except for slight differences in colour and size, and they usually fly at a great pace through the jungle, hence their name "Burong bodoh" ("stupid bird"), because they seem to be so aimlessly in a hurry, and usually give a shrill scrape as they pass.

#### Anthothreptes malaccensis, Scop.

(The Malaccan Brown-throated Sunbird.)

This is a common bird throughout the year. Male; iris reddish brown. The colours of the plumage seem to vary very much; of two shot at Santubong, September, 1911, one was much more blue than the other, which showed chiefly green, while one shot at Bau in October, 1911, had the metallic covering very imperfect: the colouring seemed to be only just appearing through dull grey feathers, though the feathers seemed to be fully grown and well fledged.

December 6th, 1912.—Male had black bill, with long tasselled tongue, but bill not so much curved as in other Sunbirds; iris brick-red; the feet and tarsus are dull

brown. The female of this species has a much duller plumage. The bill, feet, tarsus and iris are the same.

#### CHALCOPARIA PHŒNICOTIS, Temm.

(The Ruby-cheeked Sunbird.)

Seems to be rather uncommon. Maxilla black; mandible brown, shading to yellow at the base; feet and tarsus dark brown, slightly yellow at the soles; oil-gland bare; iris dark brown.

#### MUNIA BRUNNEICEPS, Wald.

(The Brown-headed Weaver.)

One of the commonest birds in Sarawak, but not so common as U. fuscans, with which species they are usually found associated in large flocks or singly. They frequent open spaces, especially fields and clearings; they are rather more shy than U. fuscans, and fly up with a whirr and a shrill "peep, peep." The bill is very powerful, pale blue, with the nostril a small hole at the base; the edges of both mandibles are turned in in a curious way, especially the lower; the upper forms a curious V into the forehead. Iris black or dark brown. The feet and claws are grey-blue.

### Uroloncha fuscans, 'Cass.' (The Little Black Weaver.)

One of the commonest birds in Upper Sarawak, to be found in all open spaces, roads, &c. Takes short flights, often in flocks of ten to twenty; may also often be seen flying high overhead. The cry is a shrill "pee, pee." The feathers are all brown, but the back and wings have a faint marking in different shades of brown which give the colouring something of an appearance of hammered silver. Nests in bushes such as pepper vines, and I have also seen a nest in the eaves of a house. The nest is of fine grass, an oblong ball with a hole at the end; the eggs are white, three to five in a nest.

The young are darker when fully fledged, and the bill is black, but white to cream at the gape; feet and claws a dirty brown.

EULABES JAVANENSIS, Osb. (The Javan Mynah.)

A common bird, usually seen in pairs, but often in flocks of four to seven. Tarsus and feet bright yellow. The bird

has a curiously, unwieldy, stumpy shape, and has a trick of twisting its head, neck, and body into many different attitudes. Iris dark brown and very soft. Mynahs are often seen flying in pairs overhead, when their black and white wings may be seen from underneath. Each primary has a bright white band across it, which is seen above and below. The bill is large and unwieldy, but finely coloured in orange and yellow. Their whistling plaintive cry is very common, and the birds are very good mimics.

The nest is built in a high, dead tree, in a hole like that of a Woodpecker, possibly in old Woodpecker holes. The eggs are pale blue, sparingly spotted with pale brown,

1.55 by 1.10, two in a nest.

Mynahs are often kept as pets by natives, and in a Sultan's palace in Java, at Djocjakarta, I saw several kept in cages, and his wives apparently took great interest in them; some had been taught to speak and whistle. In Samarahan, December 5th, I often saw flocks of ten to twenty-five in the rice fields, after the crop had been gathered.

#### LAMPROCORAX CHALYBEA, Horsf.

(The Glossy Starling.)

This bird is very common; it frequents coco-nut palms chiefly, and is seen every day flying to or from these with its swift, straight flight, while it utters a curious metallic note. The Malays call it "Burong piling." The bill is black and very strong; feet and tarsus black and strong; iris deep red. The nest is generally in the hole of a tree, eggs pale blue. It exactly takes the place of the English starling, and has the same flight and actions.

### ORIOLUS XANTHONOTUS, Horsf.

(The Black-headed Oriole.)

Not very common, but it keeps to old jungle and seems to be solitary. I shot two on February 20th, 1913, and another on December 2nd; both of these were in old jungle, whistling in their rather curious way. Bill a curious brick-red; iris crimson; oil-gland bare; feet and tarsus blue-grey. Malay name, "Burong mati bujang."

#### CHAPTIA MALAYENSIS, Blyth.

(The Malayan Drongo.)

Common in open spaces in old jungle, and very commonly seen on rivers, where it skims the water, catching

flies like a Swallow. A very plucky and pugnacious bird like the other Drongo. Feet and tarsus black. Probably most of its food is caught on the wing. Its flight is typical of a Flycatcher, uneven and darting; it will sit on a branch and make short excursions after flying insects, returning again to the same perch. Oil-gland bare and rounded; iris dark brown.

### DISSEMURUS PARADISEUS, Linn. (The Racquet-tailed Drongo.)

Fairly common, but not nearly so plentiful as it is in When excited, the feathers on the forehead are The flight is like that of a Flycatcher, and erected. probably most of its food (insects) is captured on the wing. The feet are black, with strong, sharp claws, and altogether it is a formidable bird for its size. The Malays call it "Burong brani." The elongated tail feathers are the underneath pair. I have shot one in which these feathers were quite perfect, and had not the bare shafts usually seen; either this was a young one or the feathers were not full grown after the moult. The long tail feathers of the above measured  $10\frac{3}{4}$  inches, with bare shafts after the tail proper was ended and before the racquet-like ends were reached. These racquets are finely scrolled, and the bare shafts have the appearance of being worn to that bare Iris black.

May 25th, 1913.—I saw three of these birds sitting on a low branch, two young ones and one full-grown; I shot the old bird, a male, and one young one; the iris of the old bird was dark red, while that of the younger was dull brown. The two racquet-tail feathers of the young specimen had not grown beyond the length of the other tail-feathers, but had just started to curl at the tips. While I gathered these two birds, another old bird, probably a female, came and sat on the same branch, with quite a large Lizard in its bill. About a year before this I shot one of these birds which must also have been young, as its iris was brown and the elongated tail-feathers, though nearly as long as in the mature specimen, had not the bare shafts, so that these shafts are probably worn bare by use.